[Billing Code 4140-01-P]

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Government-Owned Inventions; Availability for Licensing

AGENCY: National Institutes of Health, HHS.

ACTION: Notice.

SUMMARY: The inventions listed below are owned by an agency of the U.S. Government and are available for licensing to achieve expeditious commercialization of results of federally-funded research and development. Foreign patent applications are filed on selected inventions to extend market coverage for companies and may also be available for licensing.

FOR FURTHER INFORMATION CONTACT: Chris Kornak, J.D., 240-627-3705, chris.kornak@nih.gov. Licensing information and copies of the U.S. patent applications listed below may be obtained by communicating with the indicated licensing contact at the Technology Transfer and Intellectual Property Office, National Institute of Allergy and Infectious Diseases, 5601 Fishers Lane, Rockville, MD, 20852; tel. 301-496-2644. A signed Confidential Disclosure Agreement will be required to receive copies of unpublished patent applications.

SUPPLEMENTARY INFORMATION: Technology description follows.

Methods for Treating Cerebral Edema and Restoring Blood-Brain Barrier Integrity

Description of Technology:

There are nearly 600 million clinical cases of *Plasmodium falciparum* malaria annually. For most individuals living in endemic areas, malaria is uncomplicated and resolves with time. However, malaria can become severe and life threatening in young children, which resulted in 429,000 deaths in 2015. One of the most deadly complications of *P. falciparum* infection is cerebral malaria (HCM) characterized by the onset of severe neurological signs such as altered consciousness, seizures, and coma. Thus, there is an urgent need for the development of effective adjunctive therapies that can be used in conjunction with anti-malarials to treat children with HCM.

The inventors, listed below, have discovered that glutamine antagonists can be used to treat mice with experimental cerebral malaria (ECM) in conjunction with anti-malarials. It was found that glutamine antagonist, 6-diazo-5-L-norleucine (DON) successfully restored blood-brain barrier integrity and decreased brain swelling in ECM mice. This finding suggests that glutamine antagonists may be effective in treating neurological damage in HCM patients.

This technology is available for licensing for commercial development in accordance with 35 U.S.C. 209 and 37 CFR Part 404, as well as for further development and evaluation under a research collaboration.

Potential Commercial Applications:

- Therapeutic for cerebral malaria

Competitive Advantages:

- Effective adjunctive therapeutics for cerebral malaria are not available

Development Stage: Pre-Clinical

Inventors: Susan K. Pierce, NIAID, NIH

Johnathan Powell, Johns Hopkins University

Publications: Gordon, Emile B., et al. (2015) Targeting glutamine metabolism rescues mice from late-stage cerebral malaria. PNAS 112(42): 13075–13080.

Intellectual Property: HHS Reference No. E-202-2015/0 - US Provisional Patent Application No. 62/175,000 filed June 12, 2015; PCT Patent Application No. PCT/US2016/036996 filed June 10, 2016.

Licensing Contact: Chris Kornak, J.D., 240-627-3705, chris.kornak@nih.gov.

Collaborative Research Opportunity: For collaboration opportunities, please contact Chris Kornak, J.D 240-627-3705, chris.kornak@nih.gov.

Dated: May 24, 2017.

Suzanne Frisbie,

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Technology Transfer and Intellectual Property Office,

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